

Title (en)

Single facer with resilient small diameter corrugating roll

Title (de)

Einseitige Wellpappenmaschine mit elastischer Riffelwalze von kleinem Durchmesser

Title (fr)

Appareil pour la fabrication de bande de carton ondule à simple face comportant un rouleau élastique à cannelure de faible diamètre

Publication

EP 1329306 A3 20050928 (EN)

Application

EP 03250289 A 20030116

Priority

US 5208502 A 20020118

Abstract (en)

[origin: US2002091056A1] A single facer for corrugated paperboard of the type using a very large diameter fluted bonding roll and a much smaller diameter fluted corrugating roll which engages the bonding roll to provide a corrugating nip. The small diameter corrugating roll is made to be resilient by utilizing a thin walled roll shell so that it is capable of inward deflection in the corrugating nip in order to cushion impact and absorb the deflection as the rolls interengage along the nip. This cushioning deflection absorbs vibrational movement due to chordal action of the interengaging flutes, and thereby reduces noise level and roll wear and improves the quality and consistency of corrugation. A modified flute profile, compensating for flute pitch variations between the large diameter bonding roll and small diameter corrugating roll, assures uniform flute-to-flute engagement in the corrugating nip. Strategic positioning of the supporting stub shafts for the thin walled small corrugating roll axially outside the flute patterns provides substantially uniform small roll deflection along the nip.

IPC 1-7

B31F 1/26; **B31F 1/28**

IPC 8 full level

B31F 1/26 (2006.01); **B31F 1/28** (2006.01)

CPC (source: EP US)

B31F 1/26 (2013.01 - EP US); **B31F 1/28** (2013.01 - EP US); **B31F 1/2863** (2013.01 - EP US); **B31F 1/2877** (2013.01 - EP US)

Citation (search report)

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- [A] EP 0270808 A2 19880615 - PETERS W MASCHF [DE]
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